Clarke®

air

ANGLE DIE GRINDER SET

MODEL NO: CAT65

PART NO: 3110725

OPERATING & MAINTENANCE INSTRUCTIONS

CE

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INTRODUCTION

Thank you for purchasing this CLARKE Angle Die Grinder Set.

Before attempting to use this product, please read this manual thoroughly and follow the instructions carefully. In doing so you will ensure the safety of yourself and that of others around you, and you can look forward to your purchase giving you long and satisfactory service.

Your tool kit has been designed to give long and trouble free service. If, however, having followed the instructions in this booklet carefully, you encounter problems, take the unit to your local CLARKE dealer.

IMPORTANT

Please read all of the safety and operating instructions carefully before using this product. The following safety symbols may be found on the air tools.

	Read this instruction booklet carefully before use.		Wear ear protection.
	Wear eye protection.		Wear dust mask.

GUARANTEE

This product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt which will be required as proof of purchase.

This guarantee is invalid if the product is found to have been abused or tampered with in any way, or not used for the purpose for which it was intended.

Faulty goods should be returned to their place of purchase, no product can be returned to us without prior permission.

This guarantee does not effect your statutory rights.

GENERAL SAFETY RULES

CAUTION: FAILURE TO FOLLOW THESE PRECAUTIONS COULD RESULT IN PERSONAL INJURY, AND/OR DAMAGE TO PROPERTY.

WORK ENVIRONMENT

1. Keep the work area clean and tidy.
2. Dress appropriately - Do not wear loose clothing or jewellery. Tie long hair out of the way.
3. Keep children and visitors away - Do not let children handle the tool.
4. Do not operate the tool where there are flammable liquids or gases.

PERSONAL SAFETY

1. Stay alert and use common sense - do not operate the air tool when you are tired or under the influence of alcohol, drugs or medication.
2. Always wear eye protectors when using the tool - Eye protectors must provide protection from flying particles from the front and the side.
3. Always wear ear protectors when using the air tool.
4. Always wear a dust mask when operating this type of tool.
5. Do not overreach - Keep proper footing and balance at all times.
6. Remove any wrench before turning the power tool on. A wrench left attached to a rotating part of the power tool may result in personal injury.

USE OF AIR POWERED TOOLS

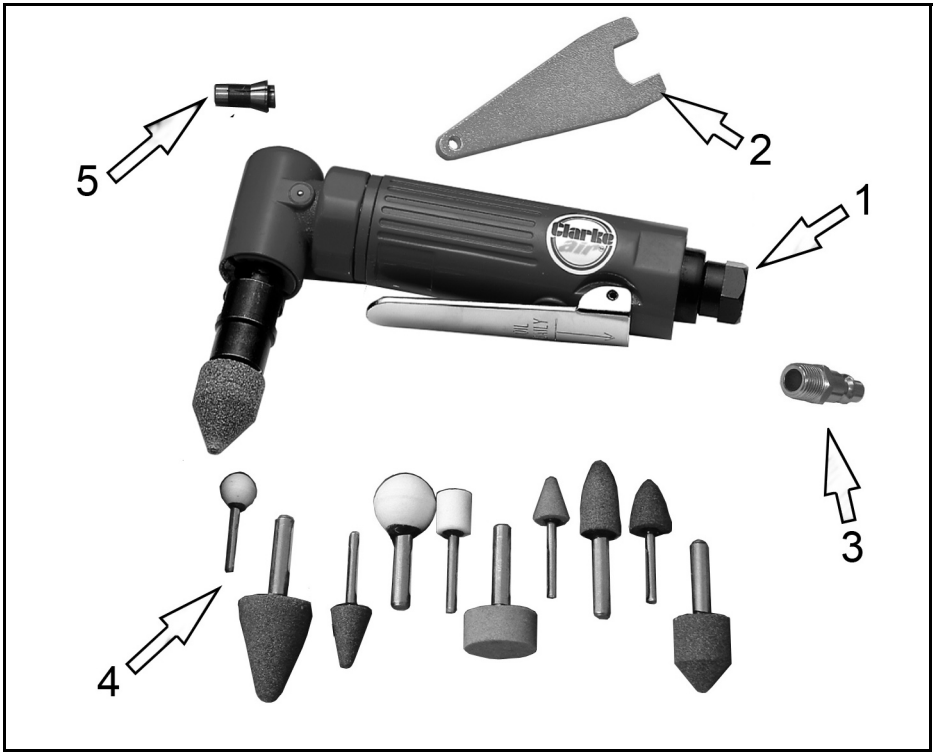
1. Never use oxygen, CO_2, combustible gases or any type of bottled gas as a source of power for the tool.
2. Do not connect the air supply hose with your finger on the trigger.
3. Do not exceed the maximum pressure for the tool of 90 psi / 6.2 bar.
4. Check hoses for leaks or worn condition before use, and ensure that all connections are secure.
5. Do not use the tool for any other purpose than that described in this manual.
6. Keep the air supply hose away from heat, oil and sharp edges.
7. Do not fit the tool to any stand or clamping device that may damage it.

8. Do not carry out any alterations or modifications to the tool.
9. Always disconnect from the air supply when:
    - Performing any maintenance.
    - The tool is not in use.
    - The tool will be left unattended.
    - Moving to another work area.
    - Passing the tool to another person.
10. Never use the tool if it is defective or operating abnormally.
11. The tool should be serviced at regular intervals by qualified service personnel.
12. Avoid damaging the tool by applying excessive force of any kind.
13. Always maintain the tool with care. Keep it clean for the best and safest performance.
14. Quick change couplings should not be located at the tool. They add weight and could fail due to vibration.
15. Do not force or misuse the tool. It will do a better and safer job at the rate for which it was designed.
16. Do not remove any labels. Damaged labels should be replaced.
17. This tool vibrates with use. Vibration may be harmful to your hands or arms. Stop using the tool if discomfort, a tingling feeling or pain occurs. Seek medical advice before resuming use.

TRANSPORTATION AND STORAGE

1. Never carry the tool by the air supply hose.
2. Never carry the tool with your finger on the trigger.
3. When not in use the tool should be disconnected from the air supply and stored in a dry place out of the reach of children (preferably in a locked cabinet).
4. Avoid storing the tool in environments where the temperature is below 0^{o}C.

OVERVIEW



The CAT65 Die Grinder Set includes the accessories shown. When opening the case for the first time, check against the following list that all the items are present. Any damage or deficiency should be reported to your CLARKE dealer immediately.

NO	DESCRIPTION	NO	DESCRIPTION
1	Die Grinder Tool	4	10 Grinding Stones
2	2 x Wrenches	5	2 x Collets (1 already fitted to tool)
3	Male Snap Connector		

SPECIFICATIONS

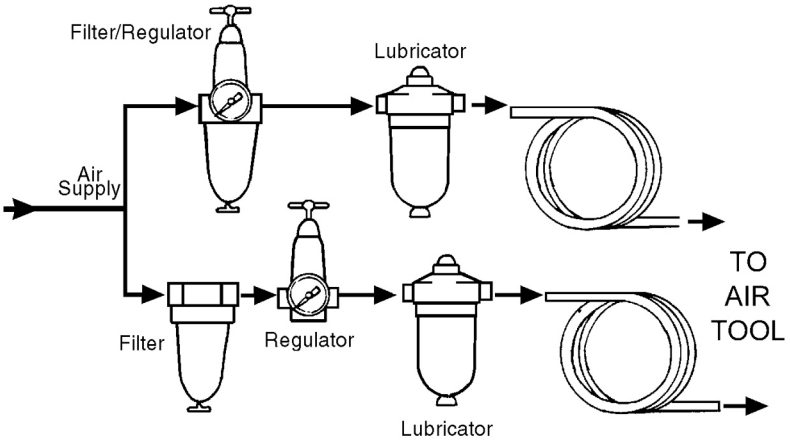
Model Number	CAT65 Angle Die Grinder
Weight	0.5 kg
Air Inlet Size	1/4"BSP (female)
Collet Sizes	1/8" and 1/4"
Operating Pressure	90 psi (6.2 bar)
Air Consumption	8 cfm average
No Load Speed	18000 rpm @ 90psi
Sound Pressure Level (LpA dB)	93 dB(A)
Sound Power Level (LwA dB)	105 dB(A)
Vibration Levels	2.5 m/s^2

Please note that the details and specifications contained herein are correct at the time of going to print. However CLARKE International reserve the right to change specifications at any time without prior notice. Always consult the machine's data plate.

COMPRESSED AIR REQUIREMENTS

WARNING: COMPRESSED AIR CAN BE DANGEROUS. ENSURE THAT YOU ARE FAMILIAR WITH ALL PRECAUTIONS RELATING TO THE USE OF COMPRESSORS AND COMPRESSED AIR SUPPLY.

- Use only clean, dry, regulated compressed air as a power source.
- Air compressors used with the tool must comply with the appropriate European Community Safety Directives.
- A build-up of moisture or oil in the air compressor will accelerate wear and corrosion in the tool. ensure any moisture is drained from the compressor daily and the inlet filter is kept clean.
- If an unusually long air hose is required, (over 8 metres), the line pressure or the hose inside diameter may need to be increased.
- The air hose must be rated at least 150% of the maximum operating pressure of the tool.



- A typical air line layout is shown above. If an automatic in-line filter/ regulator is used, it will keep the tool in good condition, but should be regularly checked and topped up with oil. SAE 10 oil should be used, and the lubricator adjusted to approx 2 drops per minute.
- Never exceed the maximum operating pressure for the tool. It is recommended that air pressure to this tool does not exceed 90 psi at the tool when running. Higher pressures and unclean air will shorten the life of the tool due to faster wear and is a possible safety hazard.

Parts & Service: 020 8988 7400 / E-mail: Parts@clarkeinternational.com or Service@clarkeinternational.com

BEFORE USE

WARNING: COMPRESSED AIR CAN BE DANGEROUS. ENSURE THAT YOU ARE FAMILIAR WITH ALL PRECAUTIONS RELATING TO THE USE OF AIR COMPRESSORS AND COMPRESSED AIR SUPPLIES.

NOTE: Ensure the compressor is turned off.

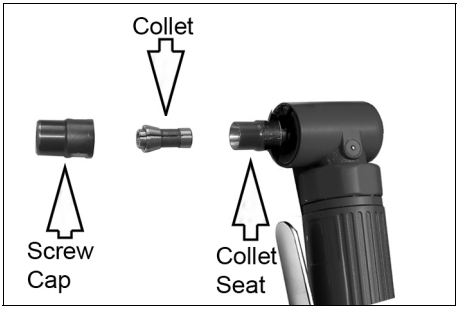
1. Remove the blanking plug from the inlet connection of the tool.
2. If required, connect an in-line mini oiler to the tool.
   - A mini oiler helps to prolong the life of the air tool.
3. If a mini-oiler is not being used, run a few drops of oil through the tool before use. It can be entered through the air inlet or via the hose at the nearest connection to the air supply.
4. Connect a suitable hose to the air inlet as shown.
5. Connect the other end of the hose to the compressor.

Your air tool is now ready for use.

You can fit a whip hose with a quick fit coupling if required (available from your Clarke dealer).

INSTALLING THE COLLET TO THE DIE GRINDER

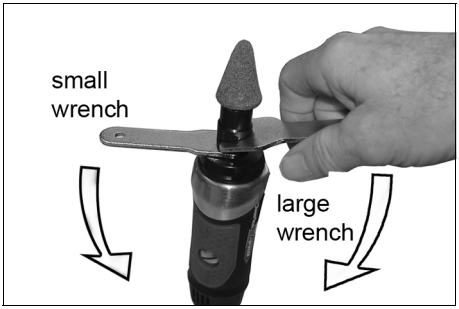
1. Select the grinding stone you require.
2. Two collets of different sizes are provided. Select whichever fits the shank of the stone you have chosen.
   - The larger collet is probably already installed in the grinder.
3. If the other collet is to be used, undo the screw cap completely and pull out the collet from the collet seat. Replace it with the new collet and screw the cap loosely back on.



FITTING THE GRINDING STONE INTO THE DIE GRINDER

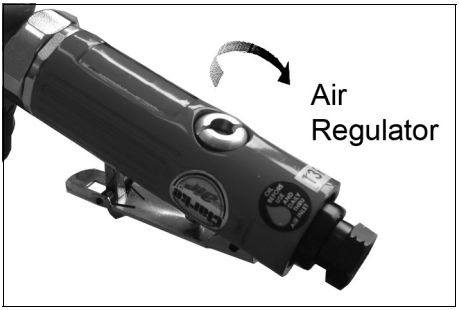
IMPORTANT: Never use chipped or cracked grindstones. Never use grindstones not rated to operate at a speed equal to, or greater than, the full operating speed of the air tool.

1. Slip the shank of the chosen stone into the collet and tighten the screw cap finger tight.
2. Place the smaller of the two wrenches over the collet seat to stop the tool from rotating.
3. Use the larger wrench to fully tighten the collet and grip the stone in position as shown.



SETTING THE SPEED

1. Adjust the tool speed by setting the air regulator on top of the tool body using a suitable screwdriver.



OPERATING THE TOOL

1. Use your thumb to slide the throttle locking lever forward while squeezing the trigger against the body of the tool.
2. Do not use excess pressure on the grinding stone as this will shorten its life.
3. Release the trigger to stop the tool.
   - The tool will continue to rotate very briefly after the trigger has been released.
4. Always ensure the tool has stopped before putting it down.

GRINDING TIPS

- The key to efficient grinding is to control the pressure and surface contact between the grinding tool and the workpiece.
- Allow the tool to reach full speed before grinding.
- Avoid overloading the die grinder. If it becomes hot during use, rest for a few minutes while it cools down.

DISCONNECTING THE AIR SUPPLY

1. Do not disconnect the air supply hose until the compressor has been shut down and the compressed air released.
2. Refer to the compressor instruction manual for the procedure to shut down and release the compressed air.
3. Once the pressure has been released, disconnect the air supply hose from the tool.

MAINTENANCE

WARNING: MAKE SURE THAT THE AIR TOOL IS DISCONNECTED FROM THE AIR SUPPLY BEFORE STARTING ANY CLEANING OR MAINTENANCE PROCEDURES.

PERFORMANCE

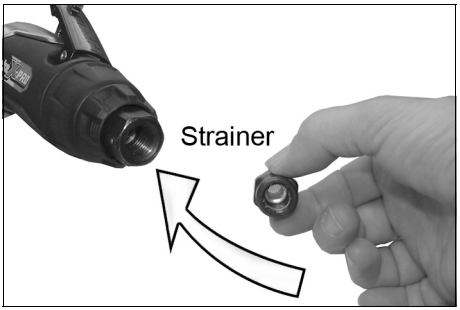
Please note that factors other than the tool may effect its operation and efficiency such as reduced compressor output, excessive drain on the airline moisture or restrictions in the air-line, or the use of connectors of improper size or poor condition which will reduce air supply.

**Clarke Air Line Oil (part no. 3050825) is available from your CLARKE dealer.

DAILY

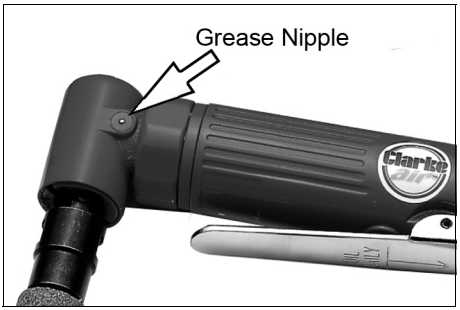
1. Before use, drain water from the air tank, air line and compressor.
2. Pour a few drops of CLARKE airline oil, into the air inlet. This should be carried out regardless of whether or not an in-line mini oiler is used. If an in-line mini oiler is not used, this procedure should be repeated after every two to three hours of use.

WEEKLY



1. Check the air inlet strainer for blockage and clean if necessary.
1. Keep the body of each tool clean and free from debris.
2. Grit or gum deposits inside the tool may also reduce its efficiency. This condition can be corrected by cleaning out the air strainer and flushing out the tool with gum solvent or oil, or failing this, the motor may require dismantling. This is better left to your Clarke dealer.

LUBRICATION



The right-angle drive is fitted with a grease nipple to provide a facility for lubrication of the drive gears.

After extensive use, apply a shot of general purpose grease using a suitable grease gun.

SERVICE AND REPAIR

If the tool runs erratically or becomes inefficient although the air supply is in good order, it may be necessary to dismantle the air motor and replace any worn or damaged parts. Such servicing and repair work should be carried out by a qualified service technician.

STORAGE

If the tool is to be stored, or is idle for longer than 24 hours, run a few drops of Clarke air line oil into the air inlet, and run the tool for 5 seconds in order to lubricate the internal parts.

When not in use, disconnect from air supply, clean tools and store in the moulded case provided. When storing, ensure the blanking plug is replaced on the airline connector once the airline is disconnected.

ACCESSORIES

A wide range of accessories is available including filter/regulators, lubricators, high-pressure hoses (5 to 50 metres) etc.

Contact your CLARKE dealer for further information or CLARKE International Service Department.

TROUBLESHOOTING

SYMPTOM	PROBLEM	SOLUTION
Tool runs at normal speed but slows down under any load.	1. Excessive pressure on tool. 2. Motor parts worn. 3. Worn or sticking mechanism due to lack of lubricant.	1. Reduce the force applied to the tool. 2. Return to Clarke dealer for repair. 3. Drip air tool lubricating oil into air inlet. Allow oil to soak moving parts before using.
Tool runs slowly. Air flows weakly from exhaust.	1. Motor parts jammed with gum/dirt. 2. Regulator in closed position. 3. General airflow blocked by dirt.	1. Examine inlet air filter for cleanliness. 2. Adjust regulator to open position. 3. Operate tool in short bursts.
Tool will not run. Air flows freely from exhaust.	1. Motor vanes stuck due to buildup of foreign material.	1. Disconnect air supply and rotate tool assembly manually. 2. Try operating tool in short bursts. 3. Drip a few drops of air tool lubricating oil into air inlet to soak moving parts.
Tool will not shut off.	1. Throttle O-rings damaged or ill-fitting in seat.	1. Return to Clarke dealer for repair.

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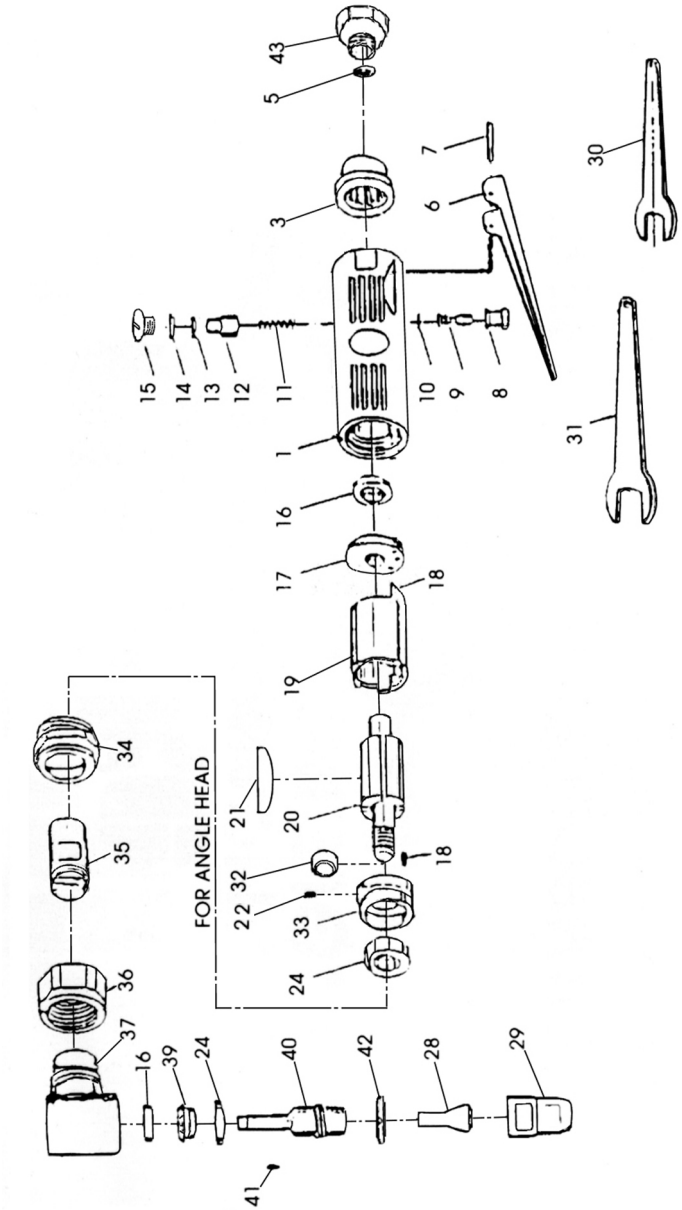
PARTS DIAGRAM - DIE GRINDER



PARTS LIST - DIE GRINDER

No	Description
1	Main Body
2	////////////////////////////////////
3	End cap
4	////////////////////////////////////
5	Strainer
6	Throttle Lever
7	Hinge Pin
8	Bush
9	Valve
10	O-Ring
11	Spring
12	Speed Control Valve
13	O-Ring
14	O-Ring
15	Throttle Valve Screw Cap
16	Ball Bearing
17	End Plate
18	Spring Pin
19	Cylinder
20	Rotor Body
21	Rotor Blades

No	Description
22	Steel Ball
23	////////////////////////////////////
24	Ball Bearing
25	////////////////////////////////////
26	////////////////////////////////////
27	////////////////////////////////////
28	Collet
29	Collett Chuck
30	Spanner
31	Spanner
32	Bush
33	Front Plate
34	Housing End
35	Bevel Gear Drive
36	Nut
37	Angle Head
38	////////////////////////////////////
39	Bevel Gear
40	Chuck Casing
41	Key
42	Bearing Cap
43	Air Inlet

DECLARATION OF CONFORMITY

Clarke® INTERNATIONAL

This is an important document and should be retained

DECLARATION OF CONFORMITY

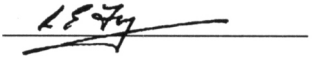
We declare that this product complies with the following standards/directives:

- **89/392/EEC**
- **EN 292-2**
- **EN 60 335 - 1**
- **EN 292-2**

Description: **Air tool range**

Model No: **CAT65**

Serial (Batch) No: **See Product Data Label**

Signed: 

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